

AMENDMENTS TO THE CLAIMS

1. (Trice Amended) A process for the dimensionally-true sintering of ceramic pre-shaped items, said process comprising:

resting a firing material during the sintering on supports not coated with metal or consisting of metal molten at the sinter temperature, which adapt independently to the shrinkage dimensions which occur during the firing process, wherein the supports are not rollable supports.

2. (Original) Process according to claim 1, the pre-shaped items being ceramic dental prostheses.

3. (Original) Process according to one of claims 1 or 2, the firing material resting on movable supporting materials which can be composed of any material which is inert vis-à-vis the firing process and does not result in adhesion to the firing material and does not contaminate the latter.

4. (Original) Process according to claim 3, the supporting materials being developed as vertically standing or horizontally lying hollow or solid rods and having a cross-section which allows a minimal contact surface with the firing material.

5. (Original) Process according to claim 3, the supporting materials having a tip which allows a minimal contact surface with the firing material, and being hollow or solid.

6. (Withdrawn) Process according to one of claims 1 or 2, the firing material resting on supporting material which has the same physical properties as the firing material itself.

7. (Withdrawn) Process according to claim 6, supporting material and firing material being prepared from the same preform.

8. (Withdrawn) Process according to claim 7, the firing material being connected to a plane surface via supporting pins which are cut through after sintering.

9. (Withdrawn) Process according to claim 7, the firing material resting in the negative mould obtained from preform through the milling process on a pourable fill material or on suitable supports and/or props.

10. (Previously Presented) Process according to claim 1 or 2, the firing material resting on supports which has very different physical properties to the firing material itself, wherein there is

no contamination or bonding of the firing material with the supports.

11. (Withdrawn) Process according to claim 1 or 2, in which gas streams which keep the ceramic pre-shaped items floating during the sintering and are inert at the sinter temperature are used as contact-free supporting materials.

12. (Withdrawn) Process according to claim 1 or 2, in which a magnetic field which keeps the ceramic pre-shaped items floating during the sintering because of incorporated or attached magnetic constituents is used as contact-free supporting material.

13. (Withdrawn) Process according to claim 1 or 2, the preform containing aluminum oxide, zirconium oxide or mixed oxides of both.

14. (New) An apparatus for sintering ceramic pre-shaped items comprising:

movable supports which contact a pre-shaped firing material at a contacting portion and support the firing material during sintering thereof in order to form ceramic pre-shaped items, said movable supports being operatively connected to a support structure not contacting the firing material, wherein the moveable supports

adapt independently to the changing dimensions of the firing material during sintering by moving with respect to the support structure without substantial movement with respect to the contacting portion of the firing material for ceramic pre-shaped item.

15. (New) The apparatus of claim 14, wherein the moveable supports are suspended hooks which support the firing material and ceramic pre-shaped item during the sintering and which move towards or away from each other as the firing material for ceramic pre-shaped item changes dimensions.

16. (New) The apparatus of claim 14, wherein the moveable supports are suspending hooks which move toward or away from each other during sintering of the firing material or ceramic pre-shaped material, wherein the hooks are operatively connected to rollers moveable on a track of the support structure.

17. (New) The apparatus of claim 14, wherein the moveable supports are suspended hooks being S-shaped which support the firing material and ceramic pre-shaped item during the sintering and which move towards or away from each other as the firing material or ceramic pre-shaped item changes dimensions.

18. (New) The apparatus of claim 16, wherein the movable supports are operatively connected to the rollers so as to be protected by a heat insulator, and wherein said rollers are operatively connected to a mechanical, electronic and/or optical scanning device having sliding bearings which provide for force equalization during sintering.

19. (New) The apparatus of claim 14, wherein the movable supports are formed of the same material as the firing material.

20. (New) An apparatus for sintering ceramic pre-shaped items comprising:

a magnetic field or gas stream which supports a firing material during sintering so as to form a ceramic pre-shaped item.